

The diagram illustrates the network architecture and protocol stacks for four main components: MS (Mobile Station), BSS (Base Station System), SGSN (Serving GPRS Support Node), and GGSN (Gateway GPRS Support Node). The interfaces between them are Um, Gb, Gn, and Gi.

MS Protocol Stack (from top to bottom):

- Application
- IP/X.25
- SNDCP*
- LLC
- RLC
- MAC
- GSM RF

BSS Protocol Stack (from top to bottom):

- Relay** (containing RLC and BSSGP)
- MAC
- L1bis

SGSN Protocol Stack (from top to bottom):

- Relay** (containing SNDCP* and GTP*)
- LLC
- BSSGP
- IP
- NW Service
- L2
- L1

GGSN Protocol Stack (from top to bottom):


- IP/X.25
- GTP*
- UDP/TCP
- IP
- L2
- L1

Interfaces:

- Um:** Between MS and BSS.
- Gb:** Between BSS and SGSN.
- Gn:** Between SGSN and GGSN.
- Gi:** Between GGSN and the external network.

Data Flow:

- A dashed arrow points from the SNDCP* layer in the MS stack to the SNDCP* layer in the SGSN stack.
- A double-headed arrow connects the GTP* layer in the SGSN stack to the GTP* layer in the GGSN stack.

 Packets with profile tags
 SNDCP*, GTP* Protocol layer with multiple profiles

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Fig. 3

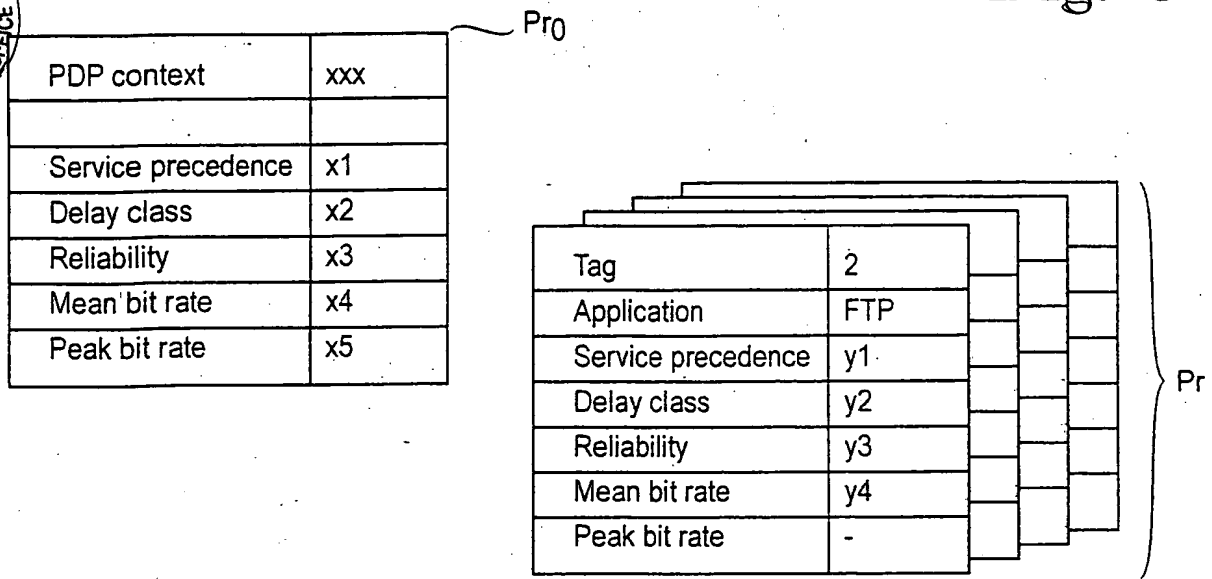
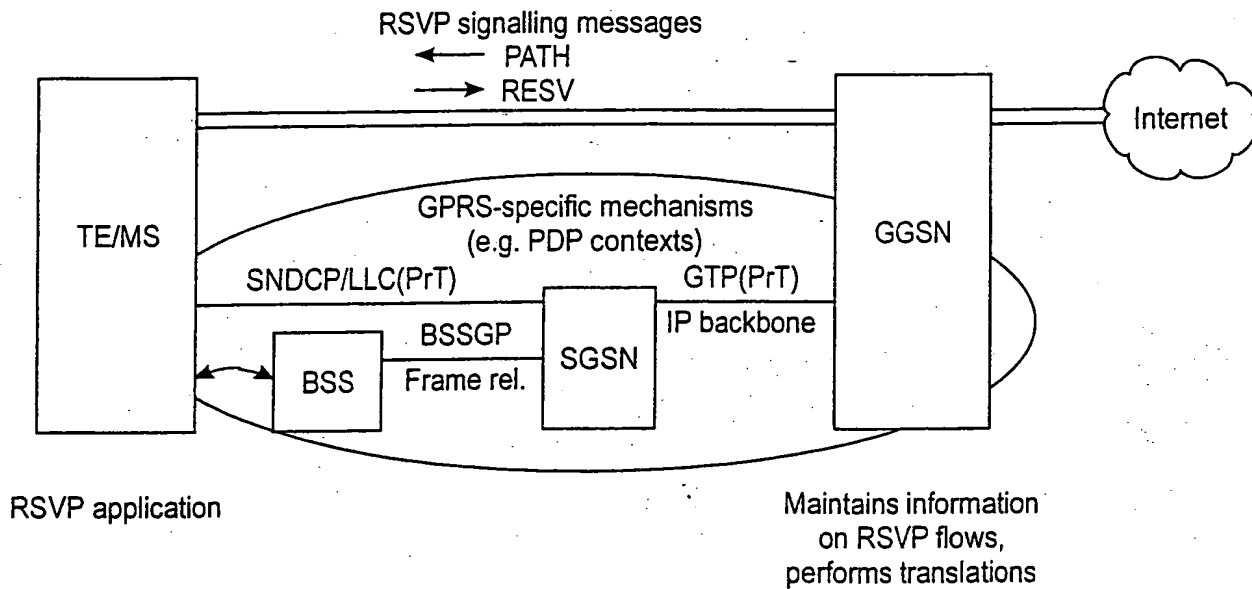


Fig. 4





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Fig. 5

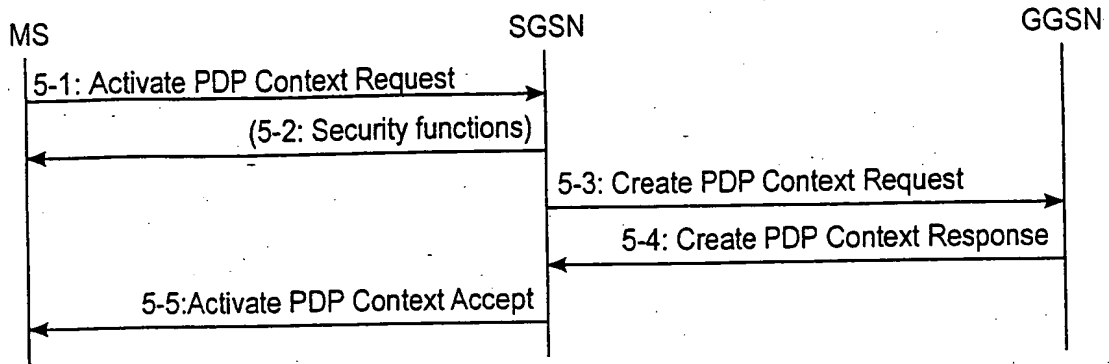


Fig. 6

